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OPEN-ENDED WORKING GROUP  
ON THE POST-2020 GLOBAL  
BIODIVERSITY FRAMEWORK

Fifth meeting

Montreal, 3-5 December 2022

Item 5 of the provisional agenda\*

## DIGITAL SEQUENCE INFORMATION ON GENETIC RESOURCES

*Note by the Executive Secretary*

### I. BACKGROUND

1. The Conference of the Parties to the Convention on Biological Diversity at its fourteenth meeting considered any potential implications of the use of digital sequence information on genetic resources (DSI) for the three objectives of the Convention and adopted decision [14/20](#). Through this decision, the Conference of the Parties committed to working towards resolving the divergence of views among Parties regarding benefit-sharing from the use of DSI through a process, comprising the submission of views and information by Parties, the commissioning of a number of studies, and the convening of an ad hoc technical expert group (AHTEG). The Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol at its third meeting also considered any potential implications for the objective of the Nagoya Protocol and adopted decision [NP-3/12](#) on digital sequence information on genetic resources. According to decisions 14/20 and NP-3/12, the Open-ended Working Group on the Post-2020 Global Biodiversity Framework (“Working Group” henceforth) was to consider the outcomes of the AHTEG, make recommendations to the Conference of the Parties at its fifteenth meeting on how to address DSI in the context of the post-2020 global biodiversity framework, and submit its outcomes to the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol at its fourth meeting.

2. Parties, other Governments, indigenous peoples and local communities (IPLCs) and organizations provided views and information; three studies<sup>1</sup> were commissioned, addressing: the concept of DSI, the characterization of the databases that host this data and the challenges and opportunities around tracing and tracking this data, and how domestic measures address benefit-sharing from use of DSI. The Ad Hoc Technical Expert Group on Digital Sequence Information on Genetic Resources met from 17 to 20 March 2020. Its report<sup>2</sup> included options for operational terms to provide conceptual clarity on DSI,<sup>3</sup> and key areas for capacity-building.

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\* CBD/WG2020/5/1.

<sup>1</sup> [CBD/DSI/AHTEG/2020/1/3](#); [CBD/DSI/AHTEG/2020/1/4](#) and [CBD/DSI/AHTEG/2020/1/5](#).

<sup>2</sup> [CBD/DSI/AHTEG/2020/1/7](#)

<sup>3</sup> See [CBD/WG2020/3/4](#), annex I, section I.

3. During the first part of the third meeting of the Working Group, held virtually from 23 August to 3 September 2021, the Co-Chairs of the Working Group, Mr. Basile van Havre (Canada) and Mr. Francis Ogwal (Uganda) and the Executive Secretary, Ms. Elizabeth Maruma Mrema, established the Informal Co-Chairs' Advisory Group on digital sequence information on genetic resources (IAG). During the period between the first and second parts of the third meeting of the Working Group, the IAG prepared a suggested analytical framework in the form of a matrix of proposed policy options and criteria for their assessment.<sup>4</sup>

4. At part II of its third meeting, held in Geneva from 14 to 29 March 2022, the Working Group adopted recommendation [3/2](#) on digital sequence information on genetic resources.<sup>5</sup> Among other things, the recommendation recognized a number of elements for a solution for fair and equitable benefit-sharing on digital sequence information on genetic resources (paras. 5 and 6). An annex to the recommendation contained a draft decision for consideration by the Conference of the Parties to the Convention at its fifteenth meeting. It also recommended that the fourth meeting of the Parties to the Nagoya Protocol consider recommendation [3/2](#) as well as any decision prepared by the Conference of the Parties at its fifteenth meeting. Furthermore, the Working Group requested the Informal Co-Chairs' Advisory Group on DSI to continue its work and to invite to the discussion representatives of the scientific research community, private sector, civil society organizations and databases, in a regionally balanced way.

5. Outcomes from the work of the IAG undertaken between April and June 2022 were made available to the Working Group at its fourth meeting, held in Nairobi from 21 to 26 June 2022. The Working Group undertook further deliberations on DSI and adopted recommendation [4/2](#), which includes a recommendation to the Conference of the Parties to adopt a decision drawing on the elements in the annex to the recommendation. The recommendation also acknowledged that the IAG would undertake further work prior to the fifteenth meeting of the Conference of the Parties.

6. Accordingly, the IAG on digital sequence information continued its work between July and October 2022, meeting for one organizational meeting and five working meetings.

7. The present document aims to facilitate and inform deliberations on DSI at the fifth meeting of the Working Group by providing information on the work that has been done since the fourth meeting of the Working Group, building upon recommendation [4/2](#). It includes the key points from the co-leads' report on the work of the IAG and elements to consider for a way forward. The full co-leads' report on the work of the Informal Co-Chairs' Advisory Group, including information on the topics discussed and an updated list of participants, is available as document CBD/WG2020/5/INF/1.

## **II. KEY POINTS FROM THE CO-LEADS' REPORT ON THE WORK OF THE INFORMAL CO-CHAIRS' ADVISORY GROUP**

8. The IAG heard and discussed information on the multilateral approaches under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the Pandemic Influenza Preparedness Framework of the World Health Organization (WHO), as well as the ongoing process to develop an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. It was noted that a solution for the fair and equitable sharing of benefits for digital sequence information on genetic resources developed under the Convention could facilitate consideration of the issue in these forums.

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<sup>4</sup> See [CBD/WG2020/3/INF/8](#), section II.A 4-6.

<sup>5</sup> As noted in the report of the meeting, the recommendation is intended to facilitate the further process on digital sequence information on genetic resources and does not prejudice the definition of or views on the parameters and principles governing a final solution.

9. The Group reviewed a note prepared by the Secretariat on the FAIR and CARE principles (see CBD/WG2020/5/INF/1, annex II).

10. On the basis of prior informal work, the Group had previously identified a number of proposed policy options as well as potential criteria for their evaluation.<sup>6</sup> Noting that the consultant originally hired for an independent economic assessment could no longer deliver the work, the Group decided to carry out its own assessment using of the proposed policy against the various criteria according to a matrix (see annex I). One of the policy options (3.2) was further subdivided and the final classification considered was as follows:

Option 0	Status quo
Option 1	DSI is treated like genetic resources, where country PIC and MAT apply
Option 2.1	DSI requires a country MAT, but no PIC
Option 2.2	DSI requires a global standardized MAT <sup>7</sup> and no PIC
Option 3.1	DSI access requires payment
Option 3.2.a	Payment/levy on services and products as inputs to research
Option 3.2.b	Bonds and labels linked to voluntary contributions <sup>8</sup>
Option 3.2.c	Levy on products from the use of DSI
Option 4	Enhanced technological and scientific collaboration and capacity-building
Option 5	No benefits are shared from the use of DSI
Option 6	1% levy on retail sales of products using biodiversity (the African proposal)

11. Members of the IAG prepared 25 matrices, two of which represented stakeholder groups, comprising several group members. Each scored the policy options for the various criteria, on a three-point scale: criteria considered likely to be met (“green”); criteria considered likely not to be met (“red”); uncertain or further information required (“yellow”). The overall result can be seen in annex 1.A below, in which each cell of the matrix shows the distribution of scoring in the 25 submissions.

12. Members of the IAG also considered whether each policy option should be considered further, and the results are presented in annex I.B.

13. The main trends that emerged from this exercise and the ensuing discussion regarding the overall assessment of policy options are:

(a) Options 0, 1, 2.1 scored poorly in the matrix (largely “red”) and nearly all members considered that they should not be considered further;

(b) Option 2.2 also scored quite poorly in the matrix (largely “red” or “yellow”) and while most considered that it should not be considered further, some members considered that it should be retained for further consideration, at least as part of hybrid solution;

(c) Option 3.1 scored moderately in the matrix (mostly “yellow”) and nearly all members considered that it should not be considered further;

<sup>6</sup> See [CBD/WG2020/3/4](#), annex I, section I.

<sup>7</sup> There could be more than one standard MAT globally

<sup>8</sup> An example of such an approach is The Lion’s Share Fund <https://mptf.undp.org/fund/lns00>

(d) Option 3.2a also scored moderately (mostly “yellow”) in the matrix and while many considered it should not be considered further, a similar number thought that further information was needed;

(e) Options 3.2b, 3.2c and 6 scored well or uncertain in the matrix (mostly “green” or “yellow”) and most members thought that they should be further considered, or that further information would be needed, rapidly;

(f) Option 4 had the most favorable scores in the matrix and all considered that it should be considered further, at least as part of a solution in combination with another option or options;

(g) Option 5 scored variably in the matrix with a number of members noting that the many criteria were not applicable, and most member considered that it should not be considered further, since, by definition, it did not achieve the objective of benefit-sharing;

(h) One participant considered that all options should be kept until a solution has drawn consensus.

14. On the criteria from the assessment, it was noted that not all criteria should be given equal weight. Some criteria are in fact essential, and not just desirable, as they pertain to articles of the Convention on Biological Diversity, the principles of the Nagoya Protocol, or some points of consensus already raised by the Working Group in recommendations 3/2 and 4/2, including those points of agreement noted in paragraphs 5 and 6 in recommendation 3/2. In light of this, the following trends can be seen:

(a) With respect to criterion 1 *monetary benefit-sharing*: options 3.1, 3.2 (sub-options a, c) and 6 were generally considered likely to meet the criterion, while others were considered not to (options 0, 1, 5) or were considered as uncertain (options 2.1, 2.2);

(b) With respect to criterion 2 *non-monetary benefit-sharing*: option 4 was generally considered likely to meet the criterion, while others were considered not to (options 0, 1, 5) or were considered as uncertain (options 2, 3 and 6);

(c) With respect to criteria 3 *open access* and 4 *does not hinder research and innovation* options 3.2 (sub-options b, c), 4, 5 and 6 were generally considered likely to meet the criterion, while others were considered not to (although options 2.2 and 3.2a showed variable results in this regard);

(d) With respect to criteria 5 *potential to contribute to conservation* and 17 *facilitates sharing of benefits with IPLCS*, most options scored as uncertain and it was noted that this would depend upon how any funds would be directed;

(e) With respect to the criteria on efficiency and feasibility (criteria 6 – 12, except criterion 11), most of the options that fulfilled the above-mentioned criteria (1-5 and 17) scored “yellow”, indicating that further information would be needed. (The exception was option 4 which scored mostly positively);

(f) For the remaining criteria relating to governance, coherence and adaptability (criteria 13-16, 18 & 19), most of the options that fulfilled the criteria 1-5 and 17 scored mostly green (or not applicable).

15. Some more general comments focused on the need to consider the impact of policy options on all stakeholders, on regions with different biodiversity capital and DSI utilization capacity. The Group also discussed the willingness of existing systems such as databases or intellectual property protection, as well as private industry, to contribute to a decision on DSI.

16. The Group agreed that two main gaps exist for a solid conclusion to the assessment of policy options:

(a) The funds distribution modalities of a potential multilateral mechanism should be developed further;

(b) The economic impact of the proposed policy options should be considered as a criterion.

17. The IAG heard presentations by members on proposals for a multilateral mechanism and for a hybrid solution combining bilateral and multilateral approaches. While both approaches were generally well received by members of the Group, with the recognition that they may help to provide a way forward, many questions were raised by both proposals. Additionally, the scientific and legal reflections of a group of stakeholders was presented to the IAG. The presentations and ensuing discussion revealed the following points:

(a) The modalities for a multilateral approach funded by a 1 per cent levy on the retail sale of all products based on biodiversity in developed countries may require agreements on definitions of several notions, such as utilization, product categories, developing countries, among others;

(b) A hybrid approach could take advantage of spatio-temporal labeling in databases to require a bilateral mechanism for endemic species and be used to inform distribution modalities of a multilateral fund. However, it was noted that the species or data falling into the bilateral mechanism would have to be of well-defined scope and some members considered that the proportion of cases for which a bilateral approach may be triggered could be quite low. Concerns were raised that any requirements for MATs could hinder research, lead to jurisdiction shopping (competition between Parties) and reduced benefit-sharing;

(c) Both the multilateral and hybrid proposals could take advantage of existing financial mechanisms, registration trigger points or governmental reporting mechanisms;

(d) Consideration should be given to options that could be implemented rapidly and be improved over time through adaptive management;

(e) Any policy options would have to comply with existing principles of the Convention on Biological Diversity and the Nagoya Protocol.

18. Members of the Group highlighted the need to urgently find a solution for the fair and equitable sharing of benefits from digital sequence information on genetic resources, noting that biodiversity is rapidly declining, and that the scale of the resources needed to reverse this is tremendous and a matter of urgency.

### **III. ELEMENTS TO CONSIDER IN A WAY FORWARD REGARDING DIGITAL SEQUENCE INFORMATION ON GENETIC RESOURCES**

19. The mandate of the Working Group on the Post-2020 Global Biodiversity Framework is to make a recommendation to the Conference of the Parties at its fifteenth meeting on how to address DSI in the context of the post-2020 global biodiversity framework. The Working Group is also to submit the outcome of its deliberations for consideration by Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol its fourth meeting.

20. In its further deliberations on digital sequence information on genetic resources and its recommendation to the Conference of the Parties on how to address DSI in the context of the post-2020 global biodiversity framework, the Working Group may wish to take into account its recommendations 3/2 and 4/2 on this matter and also consider the outcomes from the most recent work of the IAG as summarized in the paragraph above.

21. Furthermore, the Working Group, in its recommendation 3/2, recognized that a solution for fair and equitable sharing of benefits on digital sequence information on genetic resources should include a number of agreed features (paras 5 and 6). Considering the discussions in the IAG, including the assessment by its members of the proposed policy options summarized above, the Working Group, in the search for such a solution, may wish to consider the following points:

(a) A multilateral mechanism, including a multilateral fund, is emerging as a likely component of the solution (such a mechanism/fund may build upon options 3.2b, 3.2.c and/or 6, or other approaches

inspired by these options), together with enhanced technical and scientific cooperation and capacity-building (building on option 4);

(b) Hybrid approaches that combine multilateral and bilateral elements (which could build upon option 2.2) will need to be further considered, while recognizing the desirability of an approach that is simple to develop and implement;

(c) The distribution of monetary and non-monetary benefits, including benefits from any multilateral fund should take into account, among other things, the need for support for the conservation and use of biodiversity as well as for activities led by indigenous and local communities, to promote the implementation of the post-2020 global biodiversity framework. Additionally, the geographic distribution of the genetic resources that gave rise to the DSI could also be taken into consideration;

(d) Any approach should be without prejudice to existing rights and responsibilities under the Convention and the Nagoya Protocol;

(e) Consideration should be given to options that could be implemented rapidly, for example on a pilot basis, and be improved over time through adaptive management.

*Annex***RESULTS FROM THE ASSESSMENT OF PROPOSED POLICY OPTIONS****A. Compilation of scores from the Informal Advisory Group on digital sequence information**

In the matrix below, green indicates that the policy option scores high for the criterion, orange that it scores low, yellow that it is either a medium score, or that it depends on the modalities of the policy, and grey indicates that the participant did not give a score.

*Matrix legend***List of policy options:**

- 0 Status quo
- 1 DSI is treated like genetic resources, where country PIC and MAT apply
- 2.1 DSI requires a country MAT, but no PIC
- 2.2 DSI requires a global standardized MAT and no PIC
- 3.1 DSI access requires payment
- 3.2.a Payment/levy on services and products as inputs to research
- 3.2.b Bonds and labels linked to voluntary contributions
- 3.2.c Levy on products from the use of DSI
- 4 Enhanced technological and scientific collaboration and capacity-building
- 5 No benefits are shared from the use of DSI
- 6 1% levy on retail sales of products using biodiversity (the African proposal)

**List of criteria and sub-criteria:****A. Effective in achieving Goals**

- 1. Potential to delivers predictable monetary benefits
- 2. Potential to delivers predictable non-monetary benefits
- 3. Access to public databases remains open
- 4. Does not hinder research and innovation
- 5. Potential to contribute to the conservation and sustainable use of biodiversity

**B. Efficient and feasible to implement**

- 6. Technically feasible
- 7. Legally feasible
- 8. Legally clear and certain to implement
- 9. Administratively simple
- 10. Implementable within the next 2 years
- 11. Enables distinction between commercial and non-commercial use of DSI
- 12. Cost of set-up and implementation is reasonable/minimal

**C. Enables good governance**

- 13. Easy to understand by providers and users
- 14. Easily enforceable by providers
- 15. Ease of compliance for users
- 16. Does NOT result in jurisdiction shopping
- 17. Facilitates the sharing of benefits with IPLCs

**D. Coherent and adaptable**

- 18. Coherence with other fora considering DSI
- 19. Agile and adaptable to future technological and scientific development



**B. Compilation of answers to question 1: “Should this option be considered for further analysis for a solution on DSI?”**

<i>Option</i>	<b>0</b> Status Quo	<b>1</b> Treated like GR (country PIC + MAT)	<b>2.1</b> Country MAT	<b>2.2</b> Global MAT	<b>3.1</b> Payment for access to DSI	<b>3.2.a</b> Payment/ levy on research- related services, products	<b>3.2.b</b> Bonds or labels linked to voluntary contributions	<b>3.2.c</b> Levy on products from DSI	<b>4</b> Enhanced T&S collaboration, capacity- building	<b>5</b> No benefit sharing from DSI	<b>6</b> 1% levy on retail sales
<b>YES</b>	2	0	0	6*	0	2	6	8	14***	4	8
<b>NO</b>	14	18	17	14	11	8	4	3	0	9	2
<b>MAYBE</b> <i>Further info needed</i>	1	0	1	0	1	8**	8**	8**	0	0	8***
<i>Notes</i>				*includes 1 “as part of hybrid”		** includes 6 “needs further information ”	** includes 6 “needs further information”	** includes 6 “needs further information ”	*** includes 6 “as part of a solution”		***includes 7 “needs further information ”